

ASARINA PLANT NAMED 'SUN-ASARO'

BOTANICAL/COMMERCIAL CLASSIFICATION

Asarina lophospermum X *Asarina erubescens*/Asarina Plant

5

VARIETAL DENOMINATION

cv. 'Sun-Asaro'

BACKGROUND OF THE VARIETY

10 The genus *Asarina* (*Lophospermum*), belonging to the
 Scrophulariaceae, plant is a herbaceous perennial, but is
 annual in a cold climate, and is frost hardy to frost
 tender. There are ten species in the genus *Asarina*
 (*Lophospermum*) and they are native from Mexico to
15 Guatemala. The genus *Asarina* (*Lophospermum*) is similar to
 the genus *Antirrhinum*, but the differences are its
 flexible, scandent or clambering stems and its
 zygomorphic capsule. Corolla hues are various, such as
 red, violet, or dark purple distally, or whitish or light
20 violet proximally. The genus *Asarina* plant grows in full
 light and in well-drained soil flowers in summer and the
 flowering period is long.

 The *Asarina erubescens* (*Lophospermum erubescens*)
25 plant is very vigorous plant, having long stems and
 internodes, and large flowers of which the edge is
 excurved. It has few flowers, because it grows very
 quickly and blooms only at the top of the stem. The
 Asarina lophospermum (*Lophospermum scandens*) plant has
30 short stems and internodes, medium sized flowers of which
 the edge is incurved. Accordingly, this invention is
 aimed at obtaining a new variety having strong purplish-
 red colored, large excurved petals, together with a
 creeping growth habit, medium length internode, many
35 branches, and a high resistance to heat, pests and
 diseases.

BREEDING PROCESS

First of all, self-pollination of 'Sun-Asaware' (non-patented in the United States), which was bred by crossing between *Asarina lophospermum* (*Lophospermum scandens*) as female parent and *Asarina erubescens* (*Lophospermum erubescens*) as male parent, was conducted, at the Omi R&D Center of Suntory Flowers Ltd., in October 1998. In November, some seeds were obtained from the crossing. The seeds were sown and grown there in March 1999. In August 1999, 5 seedlings were selected in view of having the strong purplish-red, excurved and non-overlapped petal, and were propagated by cutting. Those seedlings were used in a trial by flower potting and bedding from May 2000, at the Omi R&D Center of SUNTORY FLOWERS Ltd. Finally one variety was selected in view of being no shorter than 'Sun-Asaware' and taller than 'Red Dragon'. The botanical characteristics of that plant were then examined, using similar variety 'Red Dragon' for comparison. As a result, it was concluded that this *Asarina* plant is distinguishable from all other varieties, whose existence is known to us, and is uniform and stable in its characteristics. The new variety of *Asarina* plant was named 'Sun-Asaro'.

This *Asarina* genus plant 'Sun-Asaro' is presently maintained at the Omi R&D Center of Suntory Flowers Ltd., residing at 863-1, Aza-Iketani, Omori-cho, Yokaichi-shi, Shiga-ken, Japan.

This new and distinct variety of *Asarina* plant, 'Sun-Asaro', was asexually reproduced by tissue culture at the aforementioned the Omi R&D Center of Suntory Flowers Ltd., and the homogeneity and stability thereof were confirmed.

DESCRIPTION

In the following description, the color-coding is in accordance with the Horticultural Color Chart of The Royal Horticultural Society, London, England (R.H.S. Color Chart).

5

The botanical characteristics of the parent plant 'Sun-Asaware' (*Asarina lophospermum* (*Lophospermum scandens*) x *Asarina erubescens* (*Lophospermum erubescens*)) used in the breeding of 'Sun-Asaro' as follows.

10

Plant;

Growth habit - Creeping

Height - Approximately 100 cm

Stem;

Thickness - Approximately 2.9 mm

15

Color - Strong yellow green (R.H.S.143A)

Pubescence - Dense

Branching - Many

Internode length - Approximately 5.5 cm

Leaf;

20

Arrangement - Arternate

Shape - Triangular

Margin - Dentate

Length - Approximately 7.8 cm

Width - Approximately 9 cm

25

Color of upper side - Moderate olive-green (R.H.S.146A)

Color of under side - Moderate yellow-green

(R.H.S.146B)

Thickness - Approximately 0.3 mm

Length of petiole - Approximately 5.5 cm

30

Attachment angle to stem - Upward

Flower;

Shape - Normal-type

Gap between upper-labiate petal and lower-labiate petal

- Broad

35

Diameter - Approximately 3.5 cm

Width of corolla - Approximately 4.8 cm

Length of tube - Approximately 7.2 cm

- Width of corolla tube - Approximately 2.2 cm
Color of upper-labiate petal - Strong purplish-red
(R.H.S.70A)
Color of lower-labiate petal - Strong purplish-red
5 (R.H.S.70A)
Outside color of corolla tube - Strong purplish-red
(R.H.S.70A)
Type of upper-labiate petal - Medium
Shape of lower-labiate petal - Overlapped
10 Type of lower-labiate petal - Excurved
Petal number - 5
Pubescence of corolla tube - Absent
Shape of pistil - Hook-shaped
Color of pistil - Light yellow-green (R.H.S. 2D)
15 Stamen number - 4
Color of anther - Light yellow-green (R.H.S.145C)
Calix length - Approximately 3.2 cm
Color of calyx - Brilliant yellow-green (R.H.S.149A)
Peduncle length - Approximately 3.8 cm
20 Peduncle thickness - Approximately 1.2 mm
Color of peduncle - Vivid yellow-green (R.H.S.144A)
Flowering time - Long
Resistance;
Coldness - Medium
25 Heat - Strong
Diseases - Strong
Pests - Strong
- The botanical characteristics of the similar variety
30 *Asarina erubescens* (*Lophospermum erubescens*) used for
examination as a comparison are as follows.
Plant;
Growth habit - Climber
Height - more than 100 cm
35 Stem;
Thickness - Approximately 3.5 mm
Color - Moderate yellow-green (R.H.S. 146B)

Pubescence - Dense

Branching - Many

Internode length - Approximately 7.5 cm

Leaf;

5 Arrangement - Arternate

Shape - Triangular

Margin - Crenate

Length - Approximately 8 cm

Width - Approximately 8.5 cm

10 Color of upper side - Moderate olive-green (R.H.S.
146A)

Color of under side - Moderate yellow-green (R.H.S.
147B)

Thickness - Approximately 0.3 mm

15 Length of petiole - Approximately 5.2 cm

Attachment angle to stem - Upward

Flower;

Shape - Normal-type

Gap between upper-labiate petal and lower-labiate petal

20 - Broad

Diameter - Approximately 4.4 cm

Width of corolla - Approximately 4.7 cm

Length of tube - Approximately 7.5 cm

Width of corolla tube - Approximately 3.6 cm

25 Color of upper-labiate petal - Vivid purplish-red
(R.H.S. 63B)

Color of lower-labiate petal - Vivid purplish-red
(R.H.S. 63B)

30 Outside color of corolla tube - Moderate purplish-red
(R.H.S. 64C)

Type of upper-labiate petal - Medium

Shape of lower-labiate petal - Non-overlapped

Type of lower-labiate petal - Excurved

Petal number - 5

35 Pubescence of corolla tube - Present

Shape of pistil - Hook-shaped

Color of pistil - Light yellow-green (R.H.S. 2D)

- Stamen number - 4
Color of anther - Light yellow-green (R.H.S.145C)
Calix length - Approximately 2.2 cm
Color of calyx - Vivid yellow-green (R.H.S.144A)
5 Peduncle length - Approximately 4.8 cm
Peduncle thickness - Approximately 1.5 mm
Color of peduncle - Brilliant yellow-green (R.H.S.
149A)
Flowering period - Long
10 Resistance;
Coldness - Medium
Heat - Strong
Diseases - Strong
Pests - Strong
15
The botanical characteristics of the similar variety
'Red Dragon' used for examination as a comparison are as
follows.
Plant;
20 Growth habit - Creeping
Height - Approximately 15 cm
Stem;
Thickness - Approximately 2.7 mm
Color - Moderate yellow-green (R.H.S. 137C)
25 Pubescence - Normal
Branching - Many
Internode length - Approximately 2.8 cm
Leaf;
Arrangement - Arternate
30 Shape - Triangular
Margin - Dentate
Length - Approximately 6.8 cm
Width - Approximately 4.5 cm
Color of upper side - Grayish-olive-green (R.H.S. 147A)
35 Color of under side-Moderate yellow-green (R.H.S. 147B)
Thickness - Approximately 0.15 mm
Length of petiole - Approximately 4 cm

Attachment angle to stem - Upward

Flower;

Shape - Normal-type

Gap between upper-labiate petal and lower-labiate petal

5 - Broad

Diameter - Approximately 1.8 cm

Width of corolla - Approximately 2.2 cm

Length of tube - Approximately 6.6 cm

Width of corolla tube - Approximately 1.7 cm

10 Color of upper-labiate petal - Moderate purplish-red
(R.H.S. 58A)

Color of lower-labiate petal - Moderate purplish-red
(R.H.S. 58A)

15 Outside color of corolla tube - Moderate purplish-red
(R.H.S. 58A)

Type of upper-labiate petal - Medium

Shape of lower-labiate petal - Overlapped

Type of lower-labiate petal - Incurved

Petal number - 5

20 Pubescence of corolla tube - Absent

Shape of pistil - Hook-shaped

Color of pistil - Light yellow-green (R.H.S. 2D)

Stamen number - 4

Color of anther - Light yellow-green (R.H.S.145C)

25 Calix length - Approximately 3.1 cm

Color of calyx - Brilliant yellow-green (R.H.S.149A)

Peduncle length - Approximately 4.2 cm

Peduncle thickness - Approximately 1.3 mm

Color of peduncle - Strong yellow-green (R.H.S. 144B)

30 Flowering period - Long

Resistance;

Coldness - Medium

Heat - Strong

Diseases - Strong

35 Pests - Strong

SUMMARY OF THE VARIETY

The new Asarina plant has a creeping growth habit and has short internode stems. The stem color is moderate yellow-green. The flower is a Penstemon-type and large. Both of the petal and the outside of corolla tube colors are strong purplish-red. The plant has a high resistance to heat, pests and diseases.

BRIEF DESCRIPTION OF THE DRAWING

FIG.1 is a photograph giving a partial view of the new variety of Asarina plant 'Sun-Asaro' planted in a pot.

FIG.2 is a photograph of flowers of the new variety of Asarina plant 'Sun-Asaro'.

DESCRIPTION OF THE VARIETY

The botanical characteristics of this new and distinct variety of Asarina plant 'Sun-Asaro' are as follows.

Plant;

Growth habit - Creeping

Height - Approximately 70 cm

Stem;

Thickness - Approximately 3.2 mm

Color - Moderate yellow-green (R.H.S. 146D)

Pubescence - Dense

Branching - Many

Internode length - Approximately 2.8 cm

Leaf;

Arrangement - Arternate

Shape - Triangular

Margin - Dentate

Length - Approximately 7.8 cm

Width - Approximately 9 cm

Color of upper side - Strong yellow-green (R.H.S. 144A)

Color of under side - Moderate yellow-green (R.H.S.

143C)

Thickness - Approximately 0.2 mm

Length of petiole - Approximately 3.5 cm

Attachment angle to stem - Upward

5 Flower;

Shape - Penstemon-type

Gap between upper-labiate petal and lower-labiate petal

- Broad

Diameter - Approximately 4.4 cm

10 Width of corolla - Approximately 4.7 cm

Length of tube - Approximately 5.3 cm

Width of corolla tube - Approximately 1.8 cm

Color of upper-labiate petal - Strong purplish-red
(R.H.S. 63A)

15 Color of lower-labiate petal - Strong purplish-red
(R.H.S. 63A)

Outside color of corolla tube - Strong purplish-red
(R.H.S. 63A)

Type of upper-labiate petal - Medium

20 Shape of lower-labiate petal - Non-overlapped

Type of lower-labiate petal - Excurved

Petal number - 5

Pubescence of corolla tube - Present

Shape of pistil - Hook-shaped

25 Color of pistil - Light yellow-green (R.H.S. 2D)

Stamen number - 4

Color of anther - Light yellow-green (R.H.S.145C)

Calix length - Approximately 3.2 cm

Color of calyx - Brilliant yellow-green (R.H.S.145B)

30 Peduncle length - Approximately 3.1 cm

Peduncle thickness - Approximately 1.1 mm

Color of peduncle - Moderate yellow-green (R.H.S. 146C)

Flowering period - Long

Resistance;

35 Coldness - Medium

Heat - Strong

Diseases - Strong

Pests - Strong

This new variety of *Asarina* plant 'Sun-Asaro' is most suitable for hanging baskets.

5 COMPARISON WITH SIMILAR VARIETY

The new variety of *Asarina* plant 'Sun-Asaro' is different from a parent variety, *Asarina* 'Sun-Asaware' in the following points,

- 10 1. The plant height of 'Sun-Asaro' is much lower than that of 'Sun-Asaware'.
2. The internode length of 'Sun-Asaro' is much shorter than that of 'Sun-Asaware'.
3. The flower shape of 'Sun-Asaro' is Penstemon-type, 15 while that of 'Sun-Asaware' is normal-type.
4. The color of whole petal and corolla tube of 'Sun-Asaro' is strong purplish-red (R.H.S.63A), while the whole petal and corolla tube color of 'Sun-Asaware' is strong purplish-red (R.H.S.70A).
- 20 5. The lower-labiate petal shape of 'Sun-Asaro' is non-overlapped while that of 'Sun-Asaware' is overlapped.
6. The pubescence of corolla tube of 'Sun-Asaro' is present while that of 'Sun-Asaware' is absent

25 The new variety of *Asarina* plant 'Sun-Asaro' is different from a similar variety, 'Red Dragon' in the following points,

1. The plant height of 'Sun-Asaro' is much higher than that of 'Red Dragon'.
- 30 2. The flower of 'Sun-Asaro' is larger than that of 'Red Dragon'.
3. The color of whole petal and corolla tube of 'Sun-Asaro' is strong purplish-red (R.H.S.63A) while that of 'Red Dragon' is moderate purplish-red (R.H.S.58A).
- 35 4. The lower-labiate petal type of 'Sun-Asaro' is excurved while that of 'Red Dragon' is incurved.